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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,627	12/13/2000	Jon D. Clauson	07844-447001	8023

21876 7590 12/19/2003

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EXAMINER

MCCARTNEY, LINZY T

ART UNIT	PAPER NUMBER
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2671

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/736,627

Applicant(s)

CLAUSON, JON D.

Examiner

Linzy McCartney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8, 10 and 13-15 is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,288,795 to Urasawa in view of Wilson et al., "HVS ColorGIF 2.0 User Manual" (Wilson).

- a. Referring to claim 1, Urasawa discloses receiving an electronic source image containing a plurality of colors not all of which can be painted in the output image and receiving a dithering mask corresponding to the source image (column 3, lines 23-31). Urasawa does not explicitly disclose wherein the dithering mask contains a plurality of dithering levels specifying the degree to which colors in corresponding regions of the source image can be variably dithered to paint the output image or generating the output image from the source image by variably dithering the colors of the output image on a regional basis according to the dithering levels specified in the received dithering mask; wherein the colors of the of the output image are dithered by creating pixel patterns of colors that are available in the limited color palette to simulate colors that are not available in the limited color palette. Wilson discloses applying a dithering mask which contains a plurality of dithering levels specifying the degree to which colors in corresponding regions of the source image can be variably dithered (Using Selections,

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paragraphs 3-5) and generating the output image from the source image by variably dithering the colors of the output image on a regional basis according to the dithering levels specified in the received dithering mask (Using Selections, paragraphs 3-5). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the method of Urasawa by receiving a dithering mask containing a plurality of levels and generating an output image by variably dithering as taught by Wilson. The suggestion/motivation for doing so would have been because it would allow different areas of an image to be handled in different ways (Wilson, Using Selections, paragraph 3).

b. Referring to claim 3, Urasawa discloses wherein the dithering mask specifies dithering on a per pixel basis (Fig. 4)

c. Referring to claim 4, Wilson discloses wherein the output image is a GIF or PNG8 (Using Selections, paragraph 3).

d. Apparatus of claims 9 and 12 perform the steps recited in method claims 1 and 3; therefore they are similar in scope and rejected under the same rationale.

3. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urasawa in view of Wilson as applied to claims 1 and 9 above further in view of Foley et al, "Computer Graphics: Principles and Practice" (Foley).

a. Referring to claim 2, Urasawa does not explicitly disclose wherein the received dithering mask is an alpha channel of the received electronic image. Foley discloses using the alpha channel in image compositing (page 835, paragraph 3 – page 836, paragraph 3) and storing the alpha channel information in the image (page 844, paragraph 1). At the

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time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Urasawa by making the dithering mask an alpha channel of the image as taught by Foley. The suggestion/motivation for doing so would have been to reduce the number of files.

b. Apparatus of claim 11 perform the steps recited in method claim 2; therefore they are similar in scope and rejected under the same rationale.

Allowable Subject Matter

4. Claims 5-8, 10, 13-15 are allowed. None of the references, either singularly or in combination, teach or fairly suggest receiving a dithering level from a corresponding pixel in a dithering mask associated with the source image, wherein the dithering level specifies the amount of the output pixel's color error to diffuse to neighboring pixels, and wherein the dithering level can specify less than the total amount of the output pixel's color is diffused to neighboring pixels.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Linzy McCartney** whose telephone number is **(703) 605-0745**. The examiner can normally be reached on Mon-Friday (8:00AM-5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at **(703) 305-9798**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose
telephone number is (703) 306-0377.

ltm
December 11, 2003


MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600